MITSUBISHI

FARBFERNSEHGERÄT
KLEURENTELEVISIE
TELEVISEUR COULEUR

COLOUR TELEVISION
TELEVISORE A COLORI
ΕΓΧΡΩΜΗ ΤΗΛΕΟΡΑΣΗ

CT-21M4GT
CT-25M4GTP

BEDIENUNGSANLEITUNG
GEBRUIKSAANWIJZING
MANUEL D'UTILISATION
OPERATING INSTRUCTIONS
ISTRUZIONI PER L''USO
ΟΔΗΓΙΕΣ ΛΕΙΤΟΥΡΓΙΑΣ

DEUTCH
NEDERLANDS
FRANCAIS
ENGLISH
ITALIANO
ΕΛΛΗΝΙΚΑ

MITSUBISHI

COLOUR TELEVISION

CT-21M4GT
CT-25M3GTOP

OPERATING GUIDE

ENGLISH

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Please read these instructions before operating the set.
This model may have controls and features unfamiliar to you.

GENERAL INFORMATION

FOR YOUR SAFETY

- Never remove the back cover - there are very high voltages inside which could kill.
- There are ventilation slots in the bottom and back of this TV - do not block these holes. Do not place the TV too close to curtains (less than 10cm) or cover it with anything.
- Never poke anything into the ventilation slots.
- Avoid using the TV in very warm or damp places - never use it in a bathroom, for example.

CLEANING

Switch off and unplug the TV from the mains before cleaning.

The cabinet should be wiped with a clean, soft, dry cloth.

The picture tube should be wiped with a soft cloth dampened with a solution of mild detergent such as dish washing liquid. Dry completely with a soft, dry cloth.

Do not use solvents, abrasive cleaners or other strong cleaning agents.

AUTOMATIC SWITCH OFF

This TV will switch off automatically about 30 minutes after the end of programme transmissions.

SETTING UP YOUR TV

POSITIONING

The TV should be placed on a hard, flat surface and there must be at least 4 cm of space on all sides to allow for ventilation.

The TV should be positioned so that strong light does not fall on the screen.

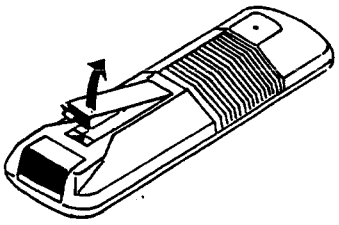
AERIAL

For the best reception you should use an aerial suitable for your area and reception conditions, your dealer can advise you about this. A set-top aerial may only give acceptable results in good reception areas.

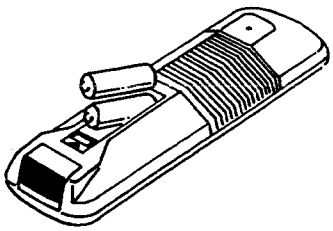
MAINS SUPPLY

This set should be connected to a mains supply of 230 Volts, 50Hz AC only.

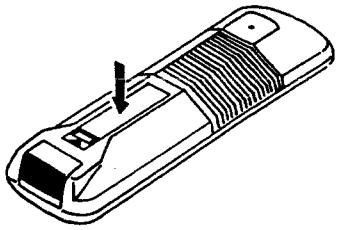
THE REMOTE CONTROL



Remove the cover.



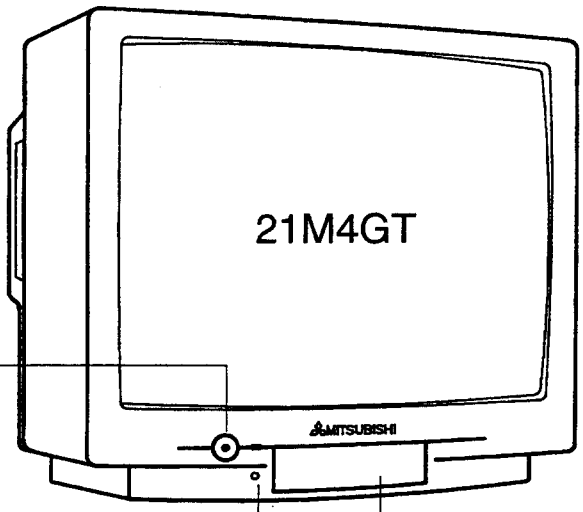
Insert the batteries, checking that the + and - marks are the right way round.



Close the cover securely.

CAUTION: Do not cut open, short circuit, heat or throw batteries into a fire.
Do not mix new and old batteries.

SWITCHING ON THE TV



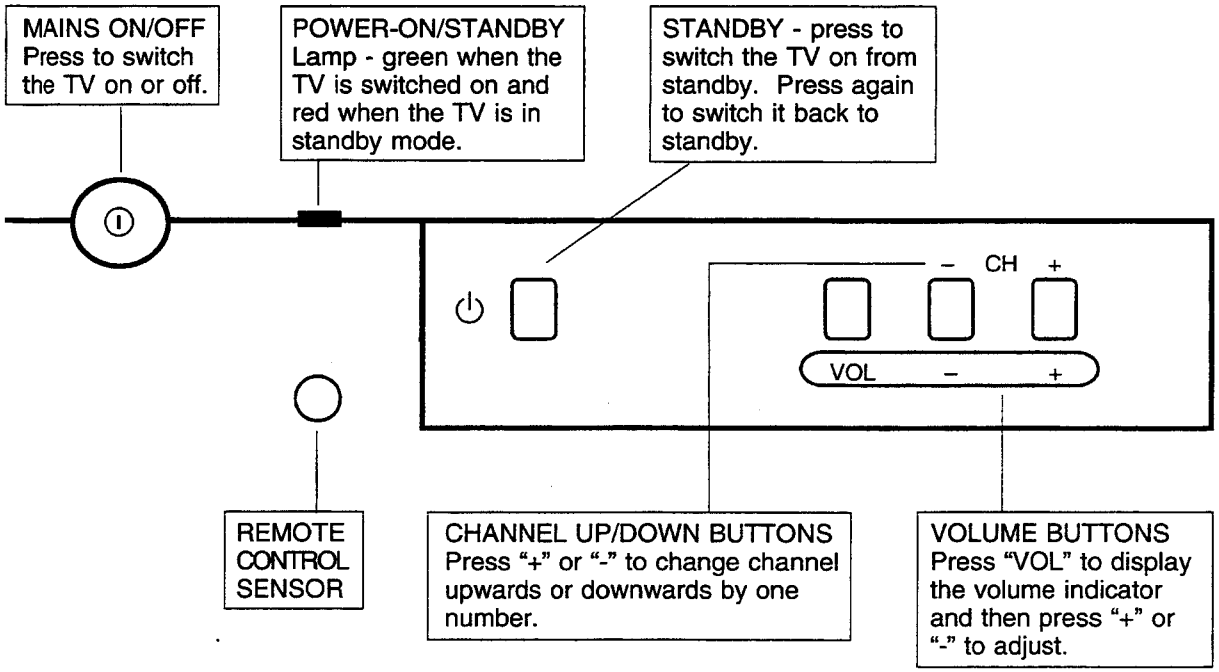
Press the **MAINS SWITCH** marked ⏻ .

If the TV does not switch on right away and only the red STANDBY light comes on, press the **STANDBY** button ⏻ on the TV or remote control.

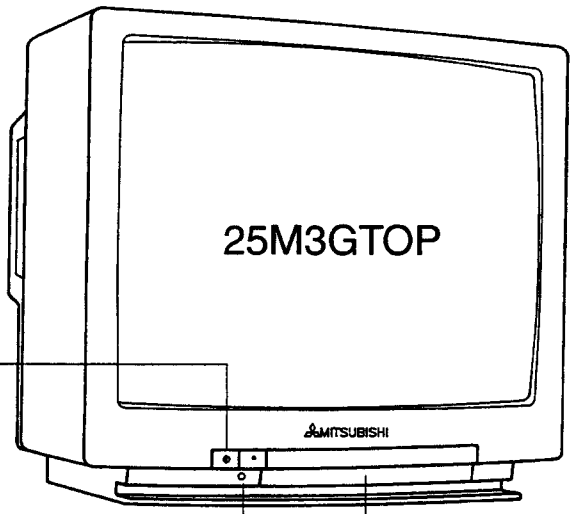
REMOTE CONTROL SENSOR point your remote control here

CONTROL PANEL DOOR push to open

TV CONTROLS


MAINS ON/OFF Press to switch the TV on or off.
POWER-ON/STANDBY Lamp - green when the TV is switched on and red when the TV is in standby mode.
STANDBY - press to switch the TV on from standby. Press again to switch it back to standby.
– CH +
VOL – +
REMOTE CONTROL SENSOR
CHANNEL UP/DOWN BUTTONS Press "+" or "-" to change channel upwards or downwards by one number.
VOLUME BUTTONS Press "VOL" to display the volume indicator and then press "+" or "-" to adjust.

SWITCHING ON THE TV



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If the TV does not switch on right away and only the red STANDBY light comes on, press the **STANDBY** button ⏻ on the TV or remote control.

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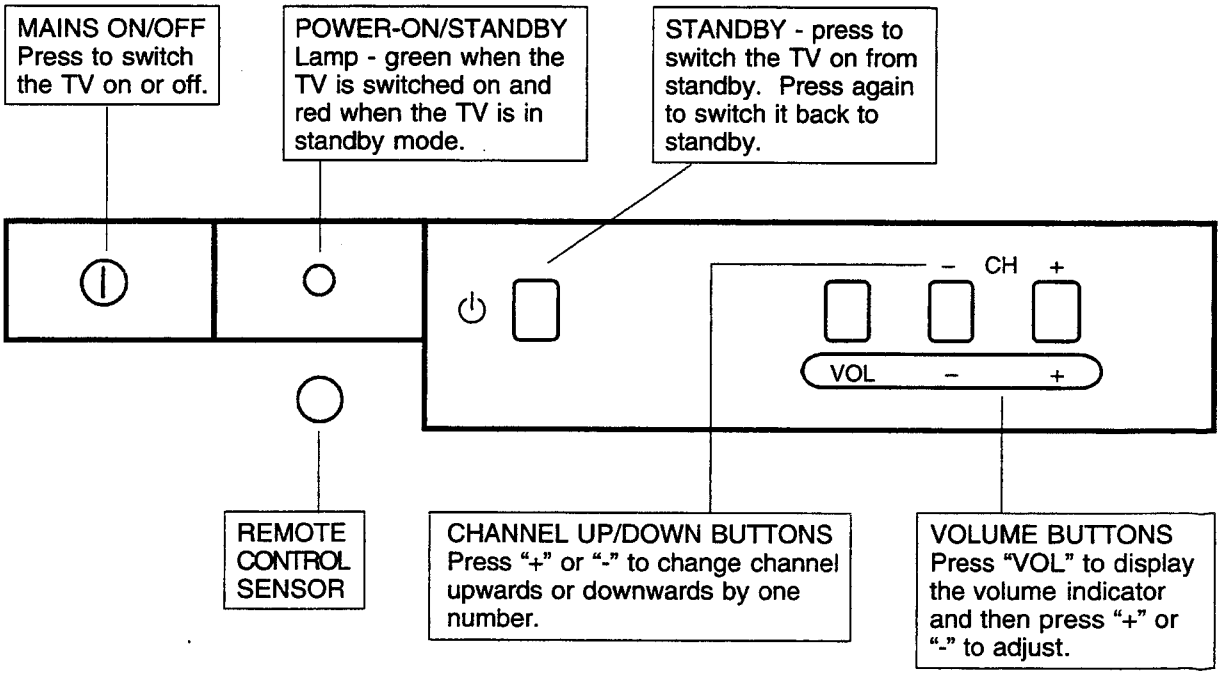
TV CONTROLS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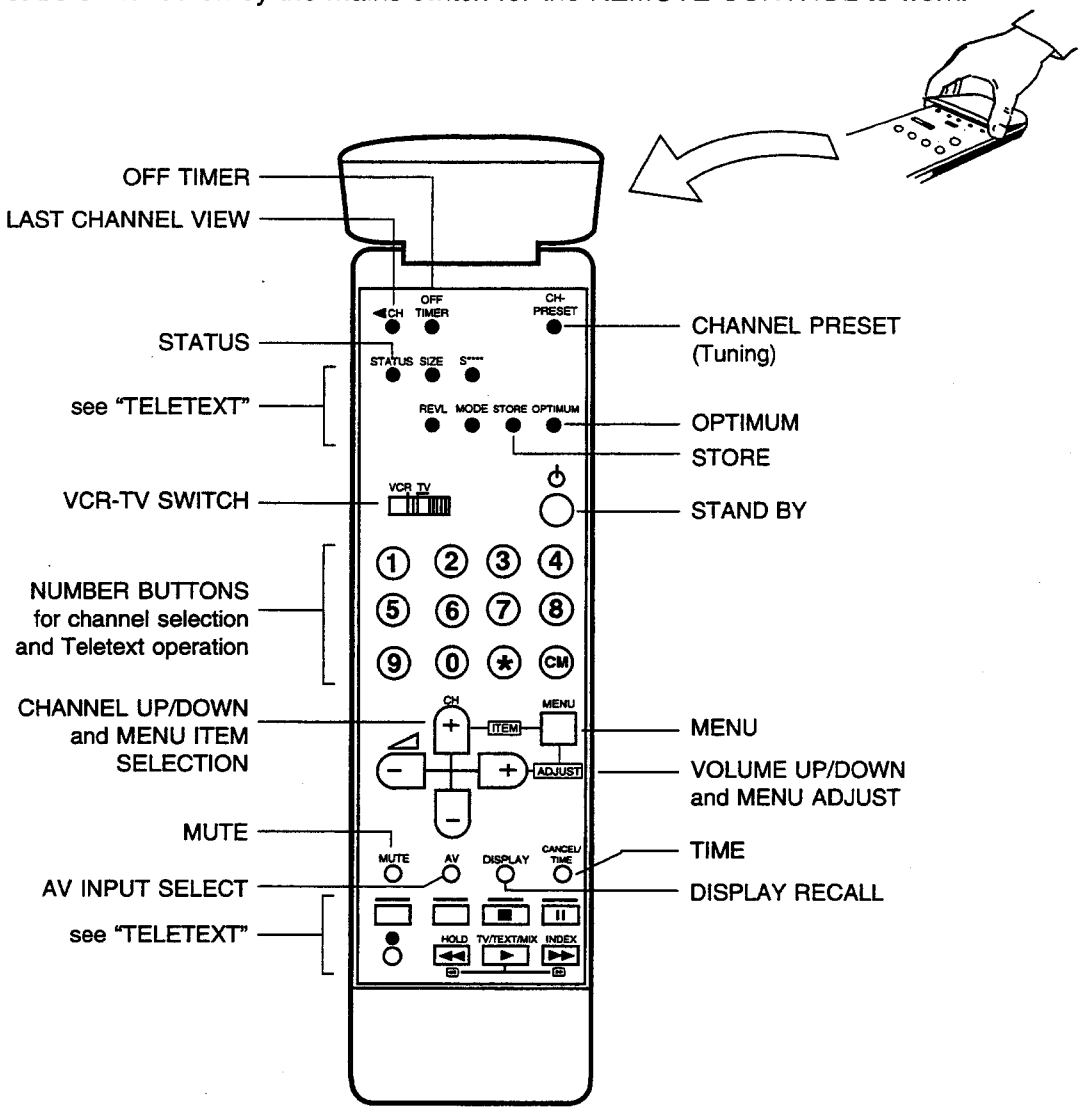
VOL
REMOTE CONTROL SENSOR
CHANNEL UP/DOWN BUTTONS Press "+" or "-" to change channel upwards or downwards by one number.
VOLUME BUTTONS Press "VOL" to display the volume indicator and then press "+" or "-" to adjust.

REMOTE CONTROL

The TV must be switched on by the mains switch for the REMOTE CONTROL to work.



VCR/TV SWITCH Set to "TV" for TV operation and to "VCR" to operate a MITSUBISHI VCR. The VCR functions are: Standby, Channel selection, Stop, Pause, Play, Fast-forward and Rewind. See your VCR operating guide for more details.

STAND BY Press to switch the TV on from standby. Press again to switch it back to standby. The power-on/standby lamp is green when the TV is switched on and red when the TV is in standby mode.

VOLUME UP/DOWN Press the + button to increase volume and the – button to reduce the volume.

MUTE Press this to switch off the sound. Press again (or press a volume button) to switch the sound back on.

CHANNEL SELECTION

CHANNEL POSITION NUMBER
Press a single number button to choose a channel position from 0 to 9. To choose a higher number, for example 14, first press "*" and then "1" and "4".

CHANNEL UP/DOWN
Press the CH+ or CH- button to change the channel up or down by one number.

DIRECT CHANNEL SELECTION
If you know the real channel number of the station you want, press "CM" and then the 2 numbers. For example, press "CM" - "2" - "6" for UHF channel 26. (Press "CM" twice for cable channels).

LAST CHANNEL VIEW
Pressing this button changes the channel to the previous one selected. Useful for switching quickly between two channels.

DISPLAY

Press to display channel, AV mode and sound mode information.

TIME

Press this to see a digital clock on the screen. (Teletext must be available on the current channel for this to work.) Press again to remove the clock. The display is also removed by changing channel, selecting an AV input, pressing "STATUS" or selecting teletext.

OPTIMUM

Press to return to the factory pre-set levels for all picture and sound adjustments except volume.
See "MENU SYSTEM" for more details.

MENU

Used for Picture and Sound adjustment and for AV input and output settings.
See "MENU SYSTEM" and "AV CONNECTORS"

AV

Press to select an AV input or TV operation.
See "AV CONNECTIONS" for more details.

OFF-TIMER

Used to pre-set a switch-off time.
See "OFF-TIMER".

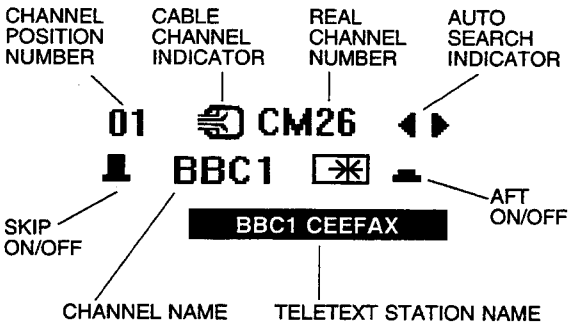
CHANNEL PRE-SET

Used when tuning the TV.
See "TUNING".

TUNING

This TV has 50 channel positions that can be pre-set to receive different channels. It is designed to receive broadcasts to the PAL-BG and SECAM-BG standards. A table of channel numbers can be found at the end of this section.

BASIC PROCEDURE



1. Press the CH-PRESET button.
2. Press the ADJUST+ button. The real channel number increases. If it stops between stations - press ADJUST+ again.

   Note: If you know the real channel numbers of any station – press "CM" and then 2 numbers. Eg. for UHF channel 26, press "CM" - "2" - "6". (Press "CM" twice for cable channels).
3. When a station is found you may see a Teletext station identification under the tuning display.
4. Choose a number for this station, E.g. press button "1".
5. Press and hold the "STORE" button until the display goes white.
6. Repeat steps 2 - 5 for all the stations you can find.
7. Press "CH-PRESET" to switch off the tuning system.

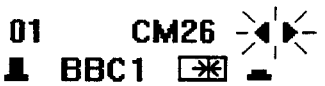
OPTIONAL PROCEDURES

CHANNEL NAME

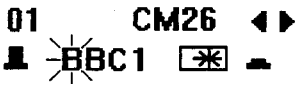
When the TV leaves the factory, the channel names are the same as the position numbers. These can be changed so that position 1 could display "SAT1" for example.

NOTE: If you clear the name by setting all characters to "- -" then the TV will use the channel position number as the channel name.

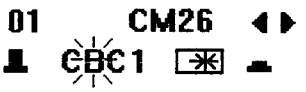
1. Select a channel position.
2. Press "CH-PRESET".



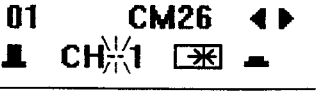
3. Press the ITEM+ button to move the yellow highlight to the first position in the channel name.



4. Press the ADJUST+ or ADJUST- button to select a letter, number or a space (shown as "- -").
5. Move to the next position using ITEM+.



6. Repeat steps 4 and 5 until the name is complete. You can move to the previous character position using ITEM–.

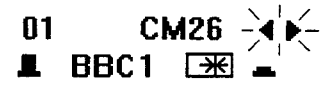


7. Press and hold the "STORE" button until the display goes white.
8. Press "CH-PRESET" and repeat the whole procedure for other stations as required.

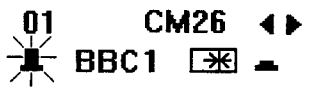
CHANNEL SKIP

This TV has a "skip" feature which allows you to pre-set a channel position so that you skip over it if you change channel using the CH +/- buttons. You can still select the channel with the number buttons.

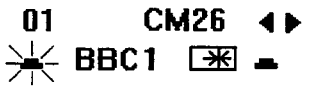
1. Select the channel position.
2. Press "CH-PRESET".



3. Press the ITEM+ button to move the yellow highlight to the SKIP ON/OFF symbol.



4. Press the ADJUST+ button to switch on ▬ or off ▙ .

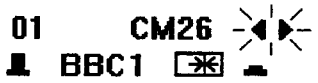


5. Press and hold the "STORE" button until the display goes white.
6. Press "CH-PRESET" and repeat the whole procedure for other stations as required.

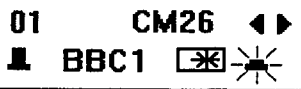
FINE TUNING

Normally, fine tuning is unnecessary as the AFT (Automatic Fine Tuning) system will take care of this. Sometimes, however, it may be desirable to fine tune manually - in the case of abnormal interference for example.

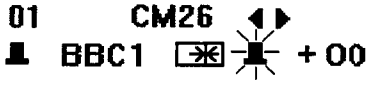
1. Press "CH-PRESET".



2. Press the ITEM+ button to move the yellow highlight to the AFT ON/OFF symbol.



3. Press the ADJUST+ button to switch the AFT off ▙.



4. Press ITEM+ to move the highlight to the fine tuning number.

5. Press ADJUST+ or ADJUST- to adjust the fine tuning until the best picture is obtained.

6. Press and hold the "STORE" button until the display goes white.
7. Press "CH-PRESET" to switch off the tuning system.

NOTE: To switch on the AFT for this channel, repeat the above procedure but switch on ▬ at step 3 and then jump to step 7.

COMBINING PROCEDURES

It is possible to combine all the procedures into one sequence as long as you do not switch off the tuning system between the individual procedures. For example, you could tune a channel, set the channel name, set it to skip and switch off the AFT and then press the store button to save all settings at once.

CHANNEL TABLE

This table shows the various channels available in most European countries. The channel number that you must enter using the "CM" button is shown in the column "On-Screen" channel no.".

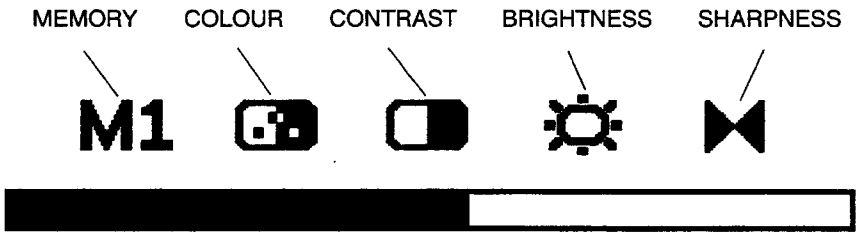
BROADCAST CHANNELS				CABLE TV CHANNELS			
Channel	On-Screen channel no.	Frequency MHz	Band	Channel	On-Screen channel no.	Frequency MHz	Band
Western Europe (CCIR)				Western Europe			
E2	02	48.25	VHF (I)	S1'	42	69.25	VHF (I)
E3	03	55.25		S2'	43	76.25	
E4	04	62.25		S3'	44	83.25	
E5	05	175.25	UHF (III)	S4'	45	90.25	
~	~	(7MHz steps)		S5'	46	97.25	
E12	12	224.25		S1 (M1)	01	105.25	VHF (III)
E21	21	471.25	UHF (IV)	~	~	(7MHz steps)	
~	~	(8MHz steps)		S10 (M10)	10	168.25	
E69	69	855.25		S11	11	231.25	
Italian Channels				~	~	(7MHz steps)	
H1	11	217.25	VHF (I)	S20	20	294.25	
H2	12	224.25		S21	21	303.25	Hyperband
A	13	53.75		~	~	(8MHz steps)	
B	14	62.25		S41	41	463.25	
C	15	82.25		H21	71 (=21+50)	303.25	
D	16	175.25	VHF (III)	~	~	(12MHz steps)	
E	17	183.75		H41	91 (=41+50)	543.25	
F	18	192.25					
G	19	201.25					
H	20	210.25					

MENU SYSTEM

Press the MENU button to display MENU 1. Pressing the button again changes the display to the next menu and finally switches off the menu display.

You use the "ITEM" and "ADJUST" buttons to select and adjust the controls. The selected control turns YELLOW.

MENU 1 AV-MEMORY AND PICTURE ADJUSTMENTS



LOW < **ADJUSTMENT GUIDE** > HIGH
(only displayed when required)

AV-MEMORY Select the AV-MEMORY control by pressing an ITEM button and choose an AV-MEMORY with an ADJUST button.

There are 3 memory positions, "M1", "M2" and "AV", which will store any changes you make to the picture and sound adjustments. This allows you to have 3 different sets of adjustments for different types of programmes. The "AV" AV-MEMORY is automatically used when an AV input is selected but you can manually select any AV-MEMORY at any time.

COLOUR Adjust the strength of the colours as preferred. Use skin colours to judge the best setting.

NOTE: Colour adjustment is not possible for TELETEXT or when using the RGB input of the AV1 connector.

CONTRAST The contrast should be adjusted to suit the brightness of your surroundings. A bright room will need a higher contrast setting than a darkened room.

BRIGHTNESS Adjust the brightness such that the black parts of the picture are only just black. That is, you should be able to see detail in the dark areas but the black parts should be black and not grey. You should not need to adjust the BRIGHTNESS control very often - use the CONTRAST control to compensate for room lighting as described above.

SHARPNESS This is used to change how sharp the picture looks. It is of most use when watching programmes from an external source such as a VCR. Pressing ADJUST+ makes the picture seem sharper, pressing the ADJUST- button makes the picture softer.

NOTE: Sharpness adjustment is not possible for TELETEXT or when using the RGB input of the AV-1 connector.

MENU 2 AV2 INPUT SETTINGS

See "AV CONNECTIONS" for details.

TELETEXT

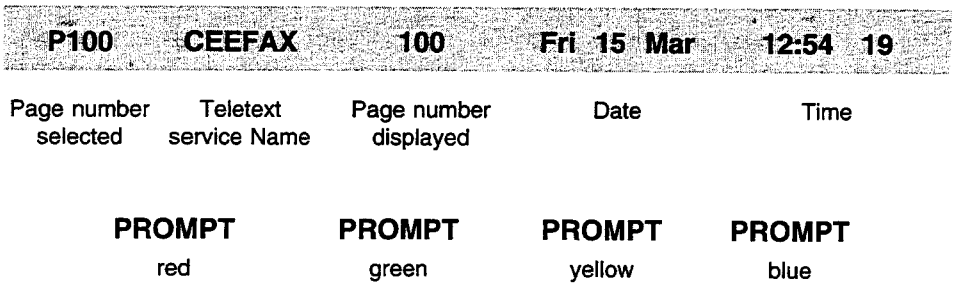
This television will operate with both FASTEXT and TOP-TEXT transmissions. FASTEXT is a system that provides a fast link to related pages using coloured "prompts" at the bottom of the page. TOP-TEXT has pages arranged logically into Blocks and Groups. Blocks are main subject headings such as SPORT, NEWS etc. and Groups are areas within these subjects such as TENNIS and FOOTBALL. As with FASTEXT, coloured prompts allow you quick access to pages using the colour buttons.

When teletext is first switched on you will see an index page - usually page 100. At the bottom of the page you may see 4 coloured "prompts". If these are all subject names, you are receiving FASTEXT. If they are numbers or if there are no prompts at all then you are receiving either TOP-TEXT or normal text. If you are receiving TOP-TEXT, after a few moments (a maximum of 60 seconds) you will see 4 coloured prompts like this:

<<	>>	TITLE OF NEXT GROUP	TITLE OF NEXT BLOCK
(red)	(green)	(yellow)	(blue)

BASIC OPERATION

1. Turn on the TV and select the channel of the teletext service you want to use.
2. Press the TV/TEXT/MIX button to turn on the teletext system. An index page similar to this is displayed:



3 Choose a subject and input the page number of the subject by pressing the number buttons on the remote control unit - if the subject you have chosen is on page 140 - press buttons 1, 4 and 0. As you press the buttons the numbers will appear at the top left of the page.

4 At the bottom of the page you may see 4 coloured "prompts", this will depend on the channels you can receive, to select one of these - press the matching colour button.

5 To superimpose the teletext page on the TV picture (MIX mode), press the TV/TEXT/MIX button.

6 To stop using teletext and return to watching TV - press the TV/TEXT/MIX button again.

7 For ***non***-TOP-TEXT broadcasts you can select an index page by pressing the INDEX button.

ENGLISH

TOP-TEXT OPERATION

1 **COLOUR buttons**

The TOP-TEXT prompts are:

<<	>>	TITLE OF NEXT GROUP	TITLE OF NEXT BLOCK
(red)	(green)	(yellow)	(blue)

The << and >> symbols mean next available page back and forwards respectively. To select one of these, press the matching colour button.

2 **NUMBER buttons**

The number buttons 0 - 9 can be used to select a page by pressing the 3 numbers in sequence. In TOP mode, if the page is not available, the following message is displayed: "SEITE XXX WIRD NICHT GESENDET" (Page XXX is not being broadcast).

3 **HIT LIST** INDEX

The TOP system allows the broadcaster to choose certain pages to be put on a separate index. This index is selected using the HIT-LIST button. There is a cursor which highlights a page title in the index. Move this cursor using the cloured buttons corresponding to the up ▲ and down ▼ prompts on the screen and select the highlighted page using the colour button matching the prompt ANWAHL (Select).

PREFERRED PAGE OPERATION — LIST MODE

1. Press the MODE button to select teletext "list" mode. The letter "L" and four coloured page numbers will appear at the bottom of the screen, E.g.:

100	**888**	**255**	**255**
red	green	yellow	blue

2. To see one of these pages — press the matching colour button.
3. To change the numbers to your own preferred pages:
   a) Press a colour button.
   b) Enter a page number (press 3 number buttons, for example).
   c) Repeat this with the other colour buttons and with other page numbers if you like.
   d) Store these new page numbers so that they are automatically displayed each time list mode is selected. Press the STORE button and hold it until the coloured numbers turn white.

   If the new page numbers are not stored then the old page numbers will return next time you select list mode.

   You can store a different set of four page numbers for each of the first 30 channel positions (0 - 29). Channels 30 to 49 share the same set of four pages as channel 29.
4. To turn off list mode press the MODE button again.

OTHER FUNCTIONS

– CH + These buttons can be used to select the next page number up or down - but note that the next page number may not exist.

SIZE Pressing the SIZE button repeatedly enlarges the top half of the page, then the bottom half and then returns the page to normal.

HOLD Some teletext pages contain several "sub-pages" which are displayed one after another. If you want to stop the sub-pages changing - press the HOLD button. The symbol will appear at the top left of the page. To cancel this function press the HOLD button again or select another page.

REVEAL Pressing the REVL button will display hidden text, for example, on a quiz page with concealed answers. Press the button again to hide the text.

CANCEL Pressing the CANCEL/TIME button restores the television picture but leaves the teletext system switched on. You can request new pages without interrupting a television programme.

The page number will be displayed if a page is received for the first time.

TIME Press the CANCEL/TIME button to see a digital clock on the screen when Teletext is switched off. Teletext must be available for this to work. Press again to switch off the clock.

STATUS Press the STATUS button to display the top line of the Teletext page when it is not normally visible, for example, when using subtitles.

SUB CODE The sub code command can be used in two ways:-

(S**)** A) If a teletext page has several sub-pages and you would like to see one particular sub-page, first select the page number. Next press the S**** button, "****" is displayed in place of the page number. Now enter the desired sub-page number using the number buttons 0 - 9, e.g. for sub-page 2/7 (2 of 7) enter 0,0,0,2. The displayed page will not change until the required page and sub-page are found.

B) Teletext may be used to provide a visible alarm by displaying a suitable message at a preset time (if this facility is being broadcast). Select the appropriate page and then press the S**** button. Now enter the time using the number buttons (24 hour clock) and then press the CANCEL button - this will restore the television picture. When the preset time arrives, the alarm message will appear.

To switch off the sub-code function press the S**** button twice or simply select a new page.

ENGLISH

OFF TIMER

The OFF-TIMER can be set to switch the television to stand by after a period of up to 90 minutes.

TO SET THE TIMER

1. Press the OFF-TIMER button, the screen shows: ⏲ :90.
2. Press again to reduce the time in 10 minute steps until you see the time you want.
3. Wait until the display disappears. The timer is now set.

TO CANCEL THE TIMER

Press the OFF-TIMER button until the display show zero or press the standby button.

TO CHECK THE REMAINING TIME

When the display is ***not*** on the screen, press the button once.

The display will appear at one minute intervals during the last 10 minutes and continuously in red for the last minute.

AV CONNECTIONS

AERIAL

The aerial socket on the back is a standard 75 ohm coaxial TV aerial socket.

You can use the aerial socket to connect a VCR, home computer or etc. but it is recommended that you use one of the following sockets as these should give a better quality result.

AV1 SCART SOCKET

Inputs: Audio, normal (composite) video and RGB.

Outputs: Audio and normal video. The output is always the same as the signal received though the aerial socket (the "TV signal") even when you are watching an AV input.

AV2 SCART SOCKET

Inputs: Audio and normal or S-video. The input can be switched between normal (composite) video and S-video.

Outputs: Audio and normal video. The output is always the same as the signal received though the aerial socket (the "TV signal") even when you are watching an AV input.

RECOMMENDED CONNECTION ARRANGEMENTS

1 VCR: connect to AV1 (or AV2 if it is an S-VHS type VCR).

2 VCRs: connect one to AV1 and the other to AV2.
(Connect any S-VHS type VCR to AV2.)

1 Satellite receiver: connect to AV1.

1 Satellite receiver and 1 VCR: connect the satellite receiver to AV1, the VCR to AV2.

Note that you may have to switch off a satellite receiver in order to watch normal TV.

Please consult your VCR or satellite instructions for more details.

AV INPUT SELECTION

You can select an AV input by pressing the AV button on the remote control. The on-screen display shows what you have selected:- AV1, AV2 or TV.

If you connect equipment to either of the SCART sockets with a SCART to SCART connecting lead, you can usually expect the equipment to switch the TV into AV mode automatically as soon as the equipment is set to play. In this case the on-screen display of "AV1" or "AV2" will appear in red underneath the current channel name.

NOTE: Selecting AV1 or AV2 by the AV button will override any automatic switching by either SCART socket.

Automatic switching by the AV1 socket will override automatic switching by AV2.

AV2 INPUT SETTING

1. Press the MENU button to display the AV system menu:

2. Press ADJUST to switch between the two options:-

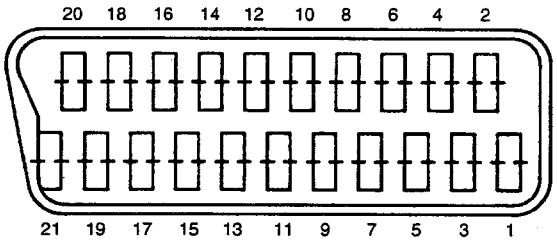
AV2 INPUT "SV" = S-VIDEO or
"AV" = normal video

3. Press the MENU button to remove the menu display from the screen.

If you are using the S-Video input, the on-screen display will show "S-AV2" in place of simply "AV2".

SCART SOCKET CONNECTIONS

PIN	AV1	AV2	PIN	AV1	AV2
1	AUDIO OUT - R		12	NOT CONNECTED	
2	AUDIO IN - R		13	RED EARTH	EARTH
3	AUDIO OUT - L		14	BLANKING EARTH	NOT CONNECTED
4	AUDIO EARTH		15	RED IN	CHROMA IN
5	BLUE EARTH	NOT CONNECTED	16	BLANKING	NOT CONNECTED
6	AUDIO IN - L		17	VIDEO OUT EARTH	
7	BLUE IN	NOT CONNECTED	18	VIDEO IN EARTH	
8	FUNCTION SWITCH		19	VIDEO OUT	
9	GREEN EARTH	EARTH	20	VIDEO IN	LUMINANCE IN
10	NOT CONNECTED		21	SOCKET EARTH	
11	GREEN IN	NOT CONNECTED			



TROUBLESHOOTING GUIDE

If something goes wrong or seems to not work, check the following points before calling for a service technician.

NO PICTURE OR SOUND

Try another channel.
Check the TV is not in standby, press the standby button ⏻ .
Check the TV is plugged in and the mains switch is on.
Check the fuse and the mains socket.

NO PICTURE BUT SOUND IS OK

Try another channel.
Check the brightness and contrast adjustments.

NO SOUND BUT PICTURE IS OK

Try another channel.
Check the volume setting - press the volume "+" button.

NO COLOUR

Is it a colour programme? - try another channel.
Check the colour adjustment.

GHOSTING (DOUBLE IMAGE)

Adjust the direction, height or position of your aerial. Reflections from buildings and hills cause this problem, a highly directional aerial can help.

SNOW

Small dots on the screen caused by a weak aerial signal - check the aerial connections, position and direction.
Try another channel - the transmitter may be on reduced power.

RANDOM NOISE INTERFERENCE

Spots or streaks on the picture and/or noise on the sound. Usually caused by cars, electrical equipment (such as electric drills or toys) and neon lamps. Try to remove the source of interference or reposition the aerial away from the source.

RADIO FREQUENCY INTERFERENCE

Causes moving ripples or diagonal lines on the screen. This is caused by interference from radio frequency transmitters such as walkie-talkies, radio-control model transmitters, etc.